



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,049	09/08/2004	Sigbjorn Sangesland	PROT008-US	8792

24222 7590 04/03/2007
 MAINE & ASMUS
 100 MAIN STREET
 P O BOX 3445
 NASHUA, NH 03061-3445

EXAMINER

BUCHANAN, CHRISTOPHER R

ART UNIT

PAPER NUMBER

3627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/507,049

Applicant(s)

SANGESLAND, SIGBJORN

Examiner

Christopher R. Buchanan

Art Unit

3627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al. (GB 2,357,101 A) alone.

Regarding claim 1, Hahn discloses a method for drilling and lining a well that includes drilling a bore (110, p. 2 line 15+), pre-installing at the bore site a liner (120, Fig. 1) below a drilling riser (p. 1 line 30+, p. 2 line 24, p. 8 line 5+), installing a riser (extending from the sea floor to the rig in Fig. 1), drilling a bore hole (110) section after the riser has been installed (p. 4 line 9+), the bore hole section having a larger diameter than the liner (p. 1 line 33), and lowering the liner into the bore hole (p. 2 line 22+).

Hahn does not disclose the diameter of the riser relative to the liner and does not state whether the well is subsea or on land. However, since the liner is pre-installed the diameter of the riser does not affect that of the liner and it could be smaller or larger than the diameter of the liner as design dictates. Also, both subsea and land wells are well-known and it is presumed that the dashed material beneath the rig (180) is the sea.

Regarding claim 2, the liner is installed below a well head (p. 4 line 19+, conventional devices include a well head). Regarding claims 3 and 11, an expandable

Art Unit: 3627

drilling assembly (130) is lowered below the liner and expanded (p. 4 line 28+, p. 5 line 26). Regarding claims 4 and 12, the drilling assembly can have a larger diameter than the liner and could be pre-installed (p.1 line 34).

3. Claims 5, 7-10, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al. (GB 2,357,101 A) alone.

Regarding claim 5, Hahn discloses a drilling and liner system for a well that includes a well bore (110, Fig. 1), a surface casing (112), a drill string (118), an expandable drilling assembly (130), a riser (extending from the sea floor to the rig in Fig. 1), and a well head (conventional device, p. 4 line 19+), wherein a liner (120, Fig. 1) is pre-installed at a point below the riser (p. 1 line 30+, p. 8 line 5+) and the expandable drilling assembly (130) is lowered below the liner, expanded, and operated to drill a bore hole (110) section to receive the liner (p. 2 line 22+).

Hahn does not disclose the diameter of the riser relative to the liner or the location of the well. However, since the liner is pre-installed the diameter of the riser does not affect that of the liner and it could be smaller or larger than the diameter of the liner as design dictates. Also, both subsea and land wells are well-known and it is presumed that the dashed material beneath the rig (180) is the sea.

Regarding claim 7, a first liner (already expanded liner) receives a smaller, second liner (un-expanded liner) in its interior (p. 9 line 6+). Regarding claim 8, the lower end of the liner is connected to the surface casing (Fig. 1). Regarding claims 9 and 10, the system includes an expandable liner (420, Fig. 5) and an expansion cone

Art Unit: 3627

(425) shaped as a conical ring that acts to expand the diameter of the liner (p. 9 col. 6+). Regarding claim 13, the various components of the system (casing, liner sections) are connected with appropriate sealings. Regarding claim 19, the liner is pre-installed within the surface casing.

4. Claims 6, 14-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al. (GB 2,357,101 A) alone.

Regarding claim 6, Hahn discloses a drilling and liner system for a well that includes a well bore (110, Fig. 1), a surface casing (112), a drill string (118), an expandable drilling assembly (130), a riser (extending from the sea floor to the rig in Fig. 1), and a well head (conventional device, p. 4 line 19+), wherein a liner (120, Fig. 1) is pre-installed at a point below the riser (p. 1 line 30+, p. 8 line 5+) and the expandable drilling assembly (130) is lowered below the liner, expanded, and operated to drill a bore hole (110) section to receive the liner (p. 2 line 22+).

Hahn does not disclose the diameter of the riser relative to the liner or the location of the well. However, since the liner is pre-installed the diameter of the riser does not affect that of the liner and it could be smaller or larger than the diameter of the liner as design dictates. Also, both subsea and land wells are well-known and it is presumed that the dashed material beneath the rig (180) is the sea.

Regarding claim 14, a first liner (already expanded liner) receives a smaller, second liner (un-expanded liner) in its interior (p. 9 line 6+). Regarding claim 15, the various components of the system (casing, liner sections) are connected with

appropriate sealings. Regarding claim 16, the lower end of the liner is connected to the surface casing (Fig. 1). Regarding claims 17 and 18, the system includes an expandable liner (420, Fig. 5) and an expansion cone (425) shaped as a conical ring that acts to expand the diameter of the liner (p. 9 col. 6+). Regarding claim 20, the liner is pre-installed within the surface casing.

Response to Arguments

5. Applicant's arguments filed December 15, 2006 have been fully considered but they are not persuasive.

Applicant argues that the Hahn reference does not disclose the features of the claimed invention. In particular, that Hahn does not disclose the claimed method in the recited order or a liner that is pre-installed.

The examiner disagrees and stands by the rejection. The exact meaning of the term "pre-installed" is unclear, so the examiner takes it to mean prior to completing construction of the drilling structure and the well bore. According to the passages on pages 1 and 8 of Hahn noted in the rejection above, the liner is used to convey the drilling assembly into the bore hole, which suggests that the liner is "pre-installed" in a step-wise fashion as the bore is drilled and extended. Also, the examiner notes, that the current claim language (as in claim 1) does not limit the method to the sequence of steps as recited in the claim.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

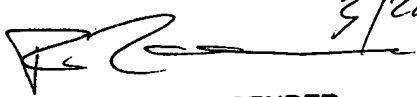
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Buchanan whose telephone number is 571-272-8134. The examiner can normally be reached on Mon.-Fri. 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan Zeender can be reached on 571-272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CB

 3/26/07
F. RYAN ZEENDER
SUPERVISORY PATENT EXAMINER